

**Professor Donna J. Cox, MFA, PhD**  
**Michael Aiken Chair**

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Cox is a professor in the School of Art and Design,  
Director Advanced Visualization Lab,  
And Theme Lead for Culture & Society, and the eDream Institute  
National Center for Supercomputing Applications (NCSA)  
University of Illinois at Urbana-Champaign

1/09 ... Present Director, eDream Institute <http://edream.ncsa.illinois.edu/>  
8/06 ... Present Director, Advanced Visualization Laboratory <http://avl.ncsa.uiuc.edu>  
12/08 Computing and Communications, PhD, University of Plymouth, UK  
2/02 ... 8/06 Director, Visualization and Experimental Technologies, NCSA  
1/99 ... 8/00 Chair External Initiatives, School of Art & Design  
8/97 ... 8/00 Director, Virtual Director Group, NCSA  
8/92 ... Present Professor, School of Art & Design  
8/90 ... 8/99 Associate Director for Technologies, School of Art & Design  
3/92 ... 8/93 Co-Director, Scientific Communications and Media Systems, NCSA  
8/90 ... 8/92 Associate Professor, School of Art & Design  
8/89 ... 3/92 Associate Director for Education, NCSA  
1/89 ... 8/96 Project Leader/PI, Renaissance Experimental Lab  
8/85 ... 8/88 Assistant Professor  
8/85 Master of Fine Arts in CGA, University of Wisconsin-Madison  
8/82 Bachelor of Art University of Wisconsin-Madison

**Selected Recognitions and Achievements**

- *Hubble3D* 2010 Giant Screen Cinema Awards, Best Film, Best Cinematography, Best Life-long learning major contributor to cinematic presentations of astrophysics
- Michael Aiken Chair, March 2008, University of Illinois
- Named by Chicago Museum of Science and Industry as one of 40 Modern-Day Leonardo'
- Databasing the Brain: Data to Knowledge (Neuroinformatics), winner for the Best New Professional and Scholarly Publishing division (PSP) of the American Association of Publishers, February 7, 2006
- Finalist and new fellow World Technology Summit Award 2005
- DomeFest 2005 winner, three works selected
- 2005 SIGGRAPH Emerging Technologies Chair <http://www.siggraph.org/s2005/main.php?f=cfp&p=etech>
- 2003 keynote speaker, SC 2003, 3000 attendees
- 2002 Golden Camera, International Film and Video Festival, "Runaway Universe", HDTV NOVA/WGBH, Producer and Art Director for Scientific Visualizations
- Appointed Editorial Advisor and member of the editorial board for Leonardo Journal of the International Society for the Arts, Sciences and Technology, January 1999-present
- Patent No. 6,154,723, November 28, 2000,: Virtual Reality 3D Interface System for Data Creation, Viewing and Editing, D.J Cox, R Patterson, M. Thiebaut, Ref. T96137, December 5, 1997
- Nominated for 1997 Academy Award in documentary short subject, "Cosmic Voyage" IMAX film, premiered August 1996.
- Elected to the Board of Directors ACM SIGGRAPH August 89-92
- University Scholars Award and Grant, from the Office of the President, UIUC 89-90
- NICOGRAPH, Tokyo, Japan 1990, 1st Prize Art and Entertainment, Computer Graphics Animation category; Japan 1988, 1st Prize; Japan 1987, 1st Prize, 1987 and 1988.
- Coler-Maxwell Medal for Excellence 1989, Leonardo, International Society in Arts Science and Technology

## **ABBREVIATED BIOGRAPHY:**

Cox received the international Coler-Maxwell Award for Excellence granted by the Leonardo International Society in Arts Science and Technology for her seminal paper founding the concept of "Renaissance Teams," interdisciplinary groups of experts collaborating to solve visualization challenges. As an artist, she collaborates with scientists and technologists to create cinematic presentations of scientific data and concepts. Over the past 25 years, she has created a large body of work and converged art with science through computer graphics. Cox writes on the art of visualization, information design, education, and cultural theory. She completed a late-career PhD 2008 where she coined the term "Visaphors" to describe digital data visual metaphors, synthesizing concepts in art practice and the philosophy of science. She is currently co-editing a forthcoming book on the oral histories of women artists who pioneered technology to be published by University of Illinois Press.

Cox is a recognized international keynote speaker on the Convergence of Art and Science. She has addressed a wide variety of audiences in Australia, New Zealand, Brazil, Finland, Japan, Switzerland, Spain, Austria, UK, and Italy. Inviting institutions include MIT, Princeton, ATR, Eli Lilly, and the National Library of Medicine. Her collaborative work has been cited, reviewed, or published in hundred's of publications including Newsweek, TIME, National Geographic, Wall Street Journal, New York Times, The Chronicle of Higher Education, and Discover magazine. She shows computer art and scientific animations in over one hundred international invited and juried exhibitions, festivals, and performances, including shows at the Arts in the Academy, a program of the National Academy of Sciences, in Washington D.C.

She and her collaborators have thrilled millions of people through compelling virtual tours in IMAX movies, digital fulldome productions, interactive exhibitions, and high-definition television broadcasts.

She was Associate Producer for Scientific Visualization and Art Director for the PIXAR/NCSA segment of the IMAX science education movie, "Cosmic Voyage," nominated for 1997 Academy Award in documentary short subject category. National Science Foundation, Smithsonian Institute, and Motorola Foundation, funded "Cosmic Voyage". Recently, she and her AVL team created over 23% of the length of "Hubble 3D" IMAX film that premiered at Smithsonian's National Air and Space Museum, March 2010. The film won three Giant Screen Awards for best film, best life-long learning, and best cinematography; over 8.7 million attendees have experienced the Hubble3D. She uses best art and design practices to direct and co-produce content for original shows including the recent fulldome "Dynamic Earth" narrated by Liam Neeson. She is the co-Principal or Principle Investigator on a variety of research grants and creative commissions including the recent 2014 NSF funded CADENS grant to produce three digital dome documentaries and nine television documentaries. The most recent fulldome museum documentary has been "Solar Superstorms" narrated by Benedict Cumberbatch.

She also collaborates with performance artists to bring digital visuals and interactive graphics to the stage including the historic "Tao of Bach" featured at the Krannert Center for the Performing Arts.

Over the years, Cox has appeared in numerous television programs and was featured in the National Library of Medicine's exhibit, "The Once and Future Web." One of her most famous collaborative works is the first visualization of the NSFnet, co-created by Bob Patterson. It has become an icon of the early Internet and is reproduced in many of texts, articles and broadcasts. Cox, Patterson and Marcus Thiebaut hold a patent for a "Virtual Reality 3D Interface System for Data Creation, Viewing and Editing" system that her team employs to create movies.

Cox has served on many research boards and advisory councils including the National Research Council's policy-making commissions. She has served multiple years as an NSF Visualization Challenge juror and held various Chairs and Directorships at ACM SIGGRAPH. She was honored by the Chicago Museum of Science and Industry as one of 40 the "modern-day Leonardos" and exhibited her digital collaborative works in the Leonardo da Vinci: Man, Inventor, Genius exhibition. She and her team have most recently collaborated on the IMAX film "A Beautiful Planet" to be premiered in NYC April 16, 2016.